Statewide Trauma Education Tour

INDIANA STATE DEPARTMENT OF HEALTH

**DIVISION OF TRAUMA
AND INJURY PREVENTION**

Indiana State
Department of Health

Change of Administration

- Governor
  - Mike Pence
- State Health Commissioner
  - Dr. William C. VanNess
- Chief of Staff
  - Jim Huston
- Assistant Commissioner, Health & Human Services Commission
  - Art Logsdon

State Department of Health's
Division of Trauma and Injury Prevention Staff

- Art Logsdon
  - Assistant Commissioner, Health and Human Services Commission
- Brian Carnes
  - Director, Trauma and Injury Prevention Division
- Katie Gatz
  - Manager, Trauma Registry
- Derek Zollinger
  - Data Analyst, Trauma Registry
- TBD
  - Injury Epidemiologist
  - EMS Data Manager

New Position: EMS Registry Candidate

- Recognizes the need for data and performance improvement

- Background as: Paramedic, EMT, nurse or other capable individual with some clinical background

- Values basic database management principles

- Understanding of NEMSIS national dataset

- Very organized with attention to detail

- Ability to help EMS providers and leadership recognize the need for quality data collection

Mission

Division of Trauma and Injury Prevention Mission:

To develop, implement and provide oversight of a statewide comprehensive trauma care system that prevents injuries, saves lives, and improves the care and outcomes of trauma victims.

Trauma Education Tour

Why are we here today?

- Continue listening to Hoosiers who deal with trauma everyday—that's you

- Statutory obligation to develop, implement and oversee a statewide trauma system

- Encourage EMS providers to share their data

  - Take advantage of our FREE software

Trauma Education Tour - Goals

- Continue to:
  - Learn more about data and your needs re: data collection and analysis
  - Learn how state and local providers can work together to better respond to trauma
  - Learn how a trauma system could better help trauma response and patient care on a day-to-day basis

Initial Education Tour Locations

Education sessions will be held in all 10 Public Health Preparedness Districts in April and May.

Public Health Preparedness Districts
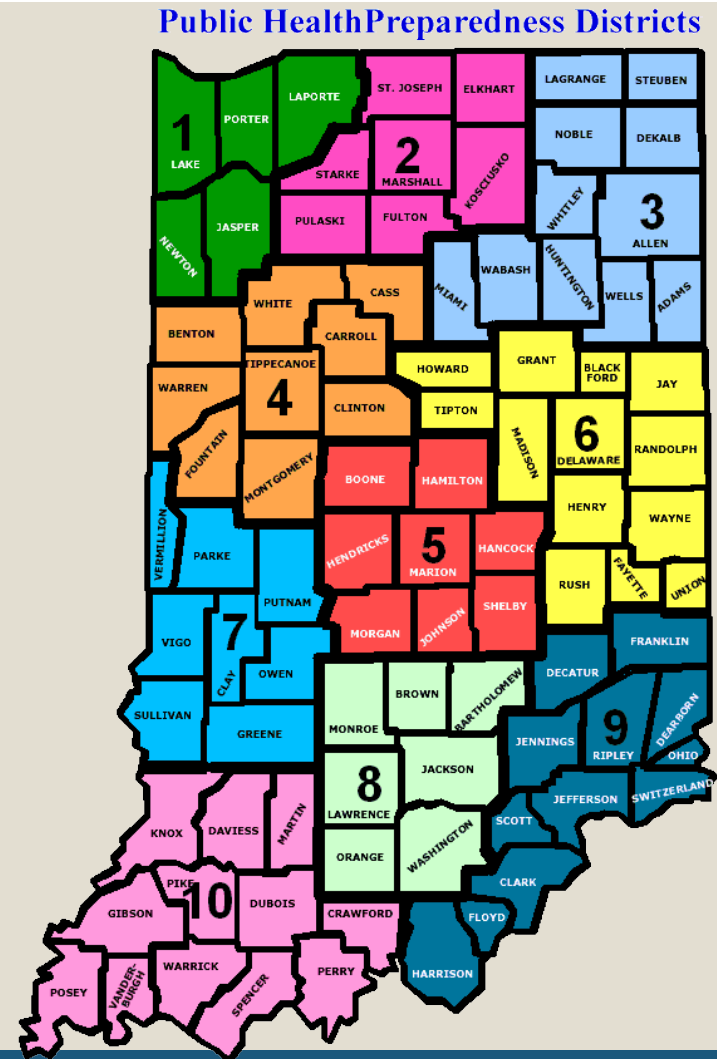
Why Now?

- Need to evaluate the **_entire_** trauma system
- Funding to purchase the EMS registry
- Trauma Registry Rule
- Trauma Center Designation

What We Have Learned

Indiana's Trauma System

- Many things were reaffirmed
  - EMS is a part of establishing a trauma system
  - Looking first at data is a great place to start
    - Building a trauma system foundation
    - Trauma side/EMS side = trauma system built on data
- New things we learned
  - More EMS providers collecting data than we'd been led to believe
    - No pushback on collecting and reporting data
    - "Give us our data back!"
  - We saw a lot of the same faces this year as last—there's staying power to this trauma system we're trying to build
  - The interest in funding a trauma system seems more intense

Trauma Facts

- Injury – or trauma, as we often refer to it – is the No. 1 killer of Hoosiers under the age of 45.

- More than 32,000 Hoosiers are hospitalized every year from injuries, and more than 3,000 died from injuries in 2010 (the most recent year for which data is available).

- About 11 people per day died from injuries during the years 2007-2010.

Trauma Facts

- For every trauma death in the United States …
  - Approximately 10 people are hospitalized and transferred to specialized medical care.
  - 178 people are treated and released from hospital emergency departments.

- Problems posed by injury are most acute in our rural areas:
  - 60% of all trauma deaths occur in areas of the United States where only 25% of the population lives.

Trauma Facts

- Indiana's special injury challenge is that we rank first in the nation for interstate highway miles per land area.

- And even though the death rate has decreased in the last 10 years, motor vehicle fatalities remain the No. 1 killer of Hoosiers ages 5-24.

Trauma Lessons Learned

- When trauma patients are transported, by ground or air, to trauma centers:

  - The <u>preventable</u> death rate DROPS by 15-30%

  - There are significant reductions of chronic disabilities and overall community care costs.

Indiana's Journey

Trauma System Evolution:

- 2004 - Trauma System Advisory Task Force formed

- 2006 - IC 16-19-3-28 (Public Law 155) named the State Health Department the lead agency for statewide trauma system

- 2008 - American College of Surgeons conducted an evaluation of Indiana's trauma system

Indiana's Journey

- 2009 - American College of Surgeons provided a set of recommendations for further development of Indiana's trauma system

- 2010 - Gov. Mitch Daniels created by executive order the Indiana State Trauma Care Committee

- 2011 - ISDH created the Trauma and Injury Prevention Division

- 2012 – EMS Commission adopted the Triage and Transport Rule

- 2013 – Preliminary ISDH adoption of the Trauma Registry Rule

Where is Indiana?

- Indiana does not have an integrated statewide trauma system—one of only 6 states without one.

- Indiana has <u>components</u> of a system:
  - Emergency medical services (EMS) providers
  - Trauma centers (nine)
  - A trauma registry
  - Rehabilitation facilities

Trauma Care System Components

- Data collection
  - EMS
  - Hospital
  - Rehabilitation

- Consistent, expert initial injury evaluation
  - Determines who should be immediately referred to a trauma center.

- Consistent transportation protocols
  - National expert guidelines determine when and how a patient is transported to a trauma center vs. a hospital emergency department.

Trauma Care System Components

- National verification of trauma centers

  - Assures each trauma center is staffed and equipped appropriately.

- Performance improvement systems

  - Dynamic data registries to assess system improvement and outcomes.

- Education and policy development for injury prevention

Trauma Registry Rule

- Rule that requires these providers to report data to the trauma registry:

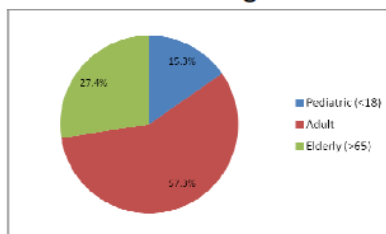 ○ EMS providers

  ○ All hospitals with EDs

  ○ Rehabilitation hospitals
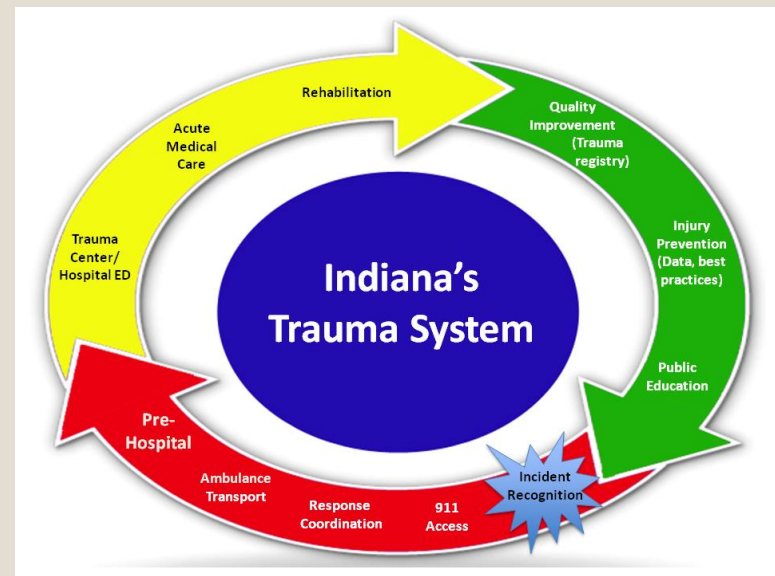
Indiana Trauma Registry Reports

Statewide
July 1, 2012 to Sept. 30, 2012
4,951 Incidents

8 Trauma Centers
26 (Non-Trauma) Hospitals
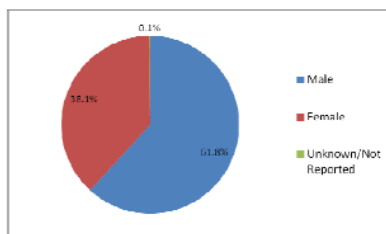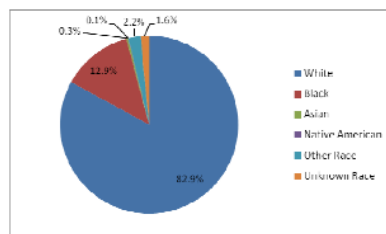
34 Total Hospitals Reporting
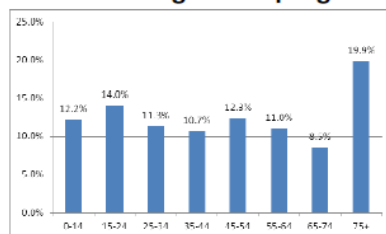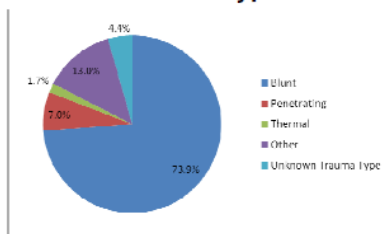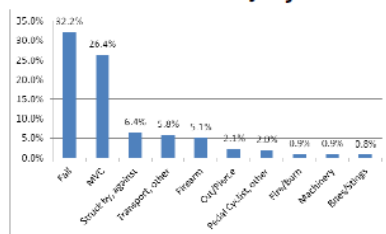
- Reporting hospitals as of March 2013:
  - 9 trauma centers
  - 31 non-trauma centers
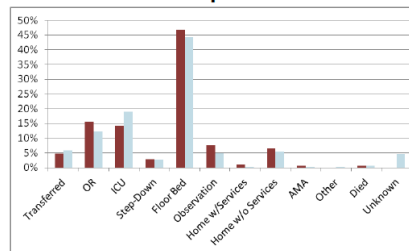- 79,000 records

July 1, 2012 to September 30, 2012
4,952 Incidents Statewide
321 Incidents at Dummy Indiana Hospital
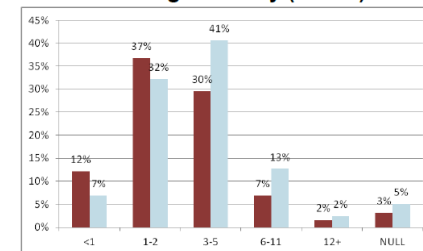W Score: 1.234   Rank (by W score): 10/25

Dummy Indiana Hospital
34 Total Hospitals Reporting
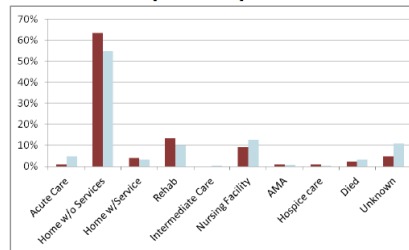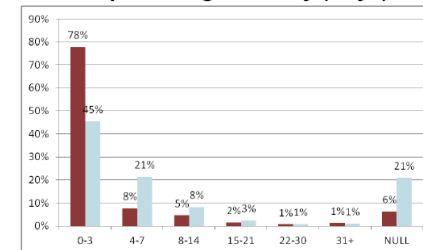
Give Us Back Our Data!

- Performance improvement

- Reports will encompass all aspects of pre-hospital
  - Comparison data: EMS provider and all others (aggregate)

- Link pre-hospital <u>and</u> hospital data re: patient outcomes

- Inventory management—meds, supplies, equipment

- Budgeting
  - Mileage
  - Overtime
  - Vehicle maintenance

ISDH EMS Registry

- Indiana EMS database (NEMSIS v2.2.1 compliant)
- Pilot Project – THANK YOU!

  - AMR
  - Beech Grove FD
  - City of Lawrence FD
  - Decatur Township FD
  - DeKalb EMS
  - Delaware County / Muncie EMS
  - Fishers FD
  - Grant County EMS
  - Greenfield FD
  - Greenwood FD
  - Harrison County Hospital
  - Indianapolis EMS

  - King's Daughters' Hospital
  - Parkview Noble Hospital
  - Seals Ambulance Service
  - South Bend FD
  - Sugar Creek Township FD
  - Sullivan County Ambulance Service
  - Sullivan FD
  - Three Rivers Ambulance Service
  - Trans-Care, Inc.
  - Town of Plainfield / Plainfield FD
  - Washington Township / Avon FD

ISDH EMS Registry

- Recruit EMS providers already collecting data electronically
  - We want your data
  - We will take as much as you are willing to share
  - We can take Fire House (Legacy) or NEMSIS data

- Training Tour—June and July
  - Recruit providers looking to move from paper to electronic
  - Explain the benefits of data collection
  - Provide free software to providers who want to upgrade to a NEMSIS compliant system

Importance of Pre-hospital Data

- Focus on data-driven decision making
  - National push for quality improvement in healthcare
  - Tied to funding CDC, HRSA, NHTSA, etc.
  - Lower future healthcare costs
  - Preventable injuries
- Identify unmet needs & priorities
  - Pockets of healthcare disparities
  - Trends due to age, race, gender, etc.
- Determine which treatments are effective
  - Local medical directors know their population
  - Effective treatments or adjustments to training
  - Stocking medication or equipment based on known runs

ISDH EMS Registry Reports
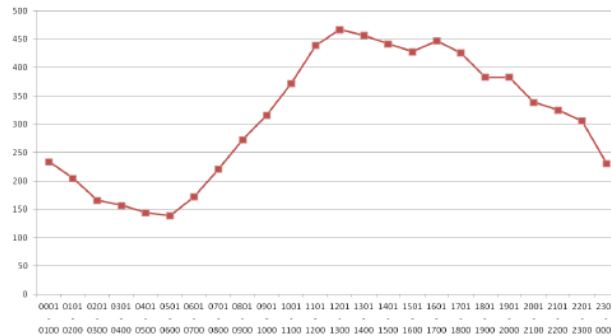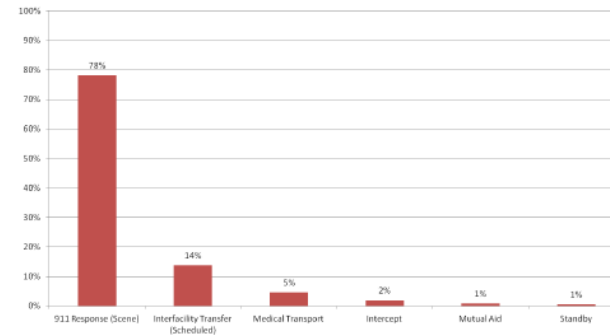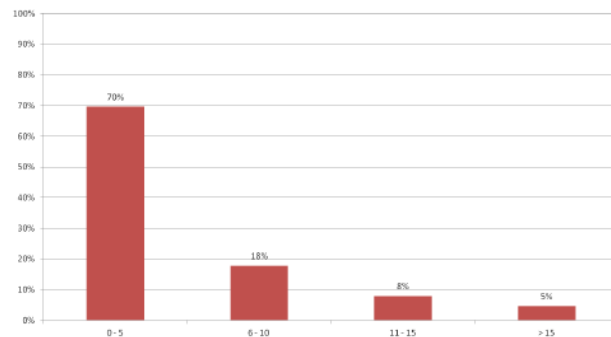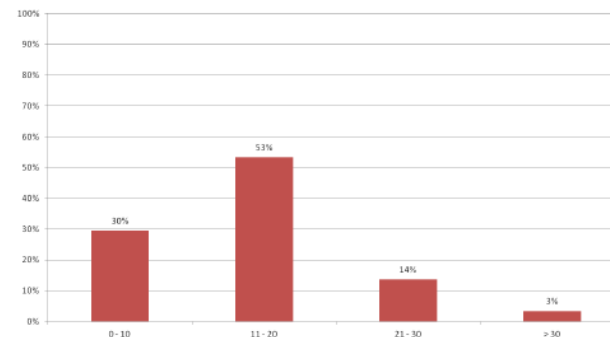
Training Tour Details

- Training will be conducted by ISDH & ImageTrend
- Training on:
  - Setting up your service in the registry
  - Directly inputting EMS runs
  - Running reports
  - Electronically submitting data
- Goal 1: Train providers on the ISDH EMS database
- Goal 2: Show what data can do for you
- Goal 3: Provide a free system to providers to upgrade to NEMSIS

Training Tour Details (continued)

June 17 – 21

- 6/17 – Terre Haute
- 6/18 – Evansville
- 6/19 – Scottsburg
- 6/20 – Columbus
- 6/21 - Indianapolis

July 22 - 26

- 7/22 – Muncie
- 7/23 – Fort Wayne
- 7/24 – South Bend
- 7/25 – Crown Point
- 7/26 – Lafayette

Training Tour Details

- All sessions are 3 hours (local time):
  - 9am-12pm

  OR

  - 1:30pm-4:30pm
- Sign Up
  - At the ISDH booth
  - Online at: https://indianatrauma.org
    - Under the training tour link

EMS Registry Timeline

- Summer 2012: Discussion of an EMS Registry

- December 2012: Meeting with EMS Commission Chairman & Vice-Chairman

- January 2013: Installed EMS database

- February 2013: Pilot project begins

- March 2013: Recruit electronic providers

Indiana Trauma Centers (Level I & II)
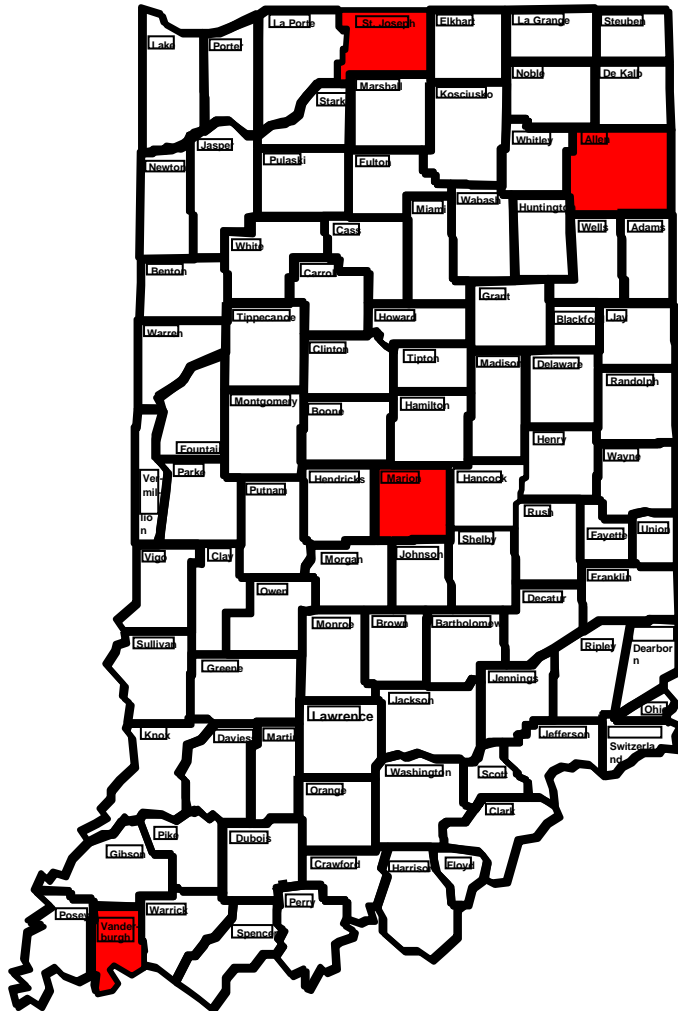
9 trauma centers
    1 South Bend
    2 Fort Wayne
    4 Indianapolis
    2 Evansville

(By comparison, Ohio has 45 trauma centers)

Trauma Center Access in Indiana

Indiana Trauma Center Access: Areas Within a 45-Minute Drive

[H] 45-Minute Accessible Trauma Center

45-Minute Accessible Areas

Traveling at Posted Speed

High Traffic Simulation: Traveling < 10 mph posted speed

	45-Minute Coverage (at posted speed)		State Total
	n	% of state	n
Land Area	8,838 sq mi	24%	36,397 sq mi
Population	3,785,460 people	58%	6,483,802 people
Interstates	1,129 miles	70%	1,614 miles

Travel times are calculated with 2010 Indiana street network reference data published by Esri. Portions of travel times for out-of-state roadways are estimated using Google Maps. Travel times do not take into account current traffic volume or restrictions. Populations are calculated from the 2010 U.S. Census Block summary geography. The method used to determine the population within 45 minutes should be considered a conservative estimate. Interstate mileage is an estimate and does not include the new I-69.

Indiana State Department of Health

Map Author: ISDH ERC Public Health Geographics - January 2013

Triage & Transport Rule

- Requires most seriously injured patients to be taken to trauma centers.

- Also—permits hospitals to be considered "trauma centers" if the hospital is either:
  - Verified by the American College of Surgeons (ACS)
  - Designated a "trauma center" by a neighboring state's trauma center designation system (if comparable to ACS' system)
  - Or, "in the process of ACS verification"

- Hospitals that are truly "in the process" may apply to be considered a trauma center for purposes of this rule.

In the process trauma centers

- EMS Commission knows EMS—not so much trauma center standards
  - Partnering with the Indiana State Trauma Care Committee (ISTCC)
  - ISTCC/State Health Commissioner will review the hospital's application
  - Recommend to the Commission whether the hospital should be considered a "trauma center" for this Rule's purposes.

- Providing additional Trauma Centers to which EMS providers may appropriately transport Step 1 and Step 2 patients.

- Available on the IDHS website.

Furthermore . . . .

- Other aspects of "in the process" trauma centers:

  * Hospitals must provide sufficient documentation for the ISDH and IDHS to conclude that the hospital complies with a series of requirements.

  * The provisional trauma center status shall not exceed 2 years from the date the provisional status begins.

  * If the hospital is not able to become verified as a trauma center within that 2-year period:
    - * Provisional status is revoked
    - * Hospital can't re-apply for at least 3 years.

- Effect—more trauma centers to which EMS may take seriously injured patients.

In the Future

- Designation Rule

  o Verified by American College of Surgeons

  o Designated by State Department of Health

  o Designated—asking Indiana trauma centers to "do a little extra"

  o 2013 and 2014

Trauma & Injury Prevention timeline

- April & May: Educational Tour

- May: Trauma Care Committee

- June: EMS Commission

- June & July: Training Tour

- August: Trauma Care Committee

- October: Optimal Course offered by ISDH

EMS Database –
Training Tour Registration

Remember to Sign Up!

At the ISDH booth

or

Online at: indianatrauma.org

Under the training tour link

Conclusion

Thank you!

Questions?